DETAILED ACTION

This office action is in response to the newly submitted amendment filed October 9, 2006. This is a re-creation of the notice of allowance of October 9, 2006, which Applicant did not receive.

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interviews with Attorney Anthony V.S. England,   on December 11-12, 2008.

CLAIM AMENDMENTS

Amend the claims as follows:

1. (Currently Amended) A method of executing an application on a data processing system having a processor and at least one storage device connected to the processor, the method comprising:

interpreting byte codes of an application by a virtual machine of the data processing system, the application being of a designated type, the virtual machine being stored on the at least one storage device to enable execution of the designated type by the processor independently of a kind of the processor and a kind of operating system software of the data processing system, the data processing system having a plurality of runtime environments for the designated type, each runtime environment including instructions stored on the least one storage device for execution by the processor to implement the virtual machine on the data processing system, the storage device having stored thereon a certain program for controlling the processor to select one of the runtime environments for the application, and the processor being operative with the certain program to execute the certain program for performing:

a) parsing files of the data processing system's at least one storage device and retrieving information from the parsed files, the retrieved information being indicative of a set of compatible execution environments, ~~wherein~~ each such compatible execution environment being ~~is~~ suitable for executing the application;

b) searching the information retrieved from the parsed files of the data processing system's at least one storage device to locate any compatible execution environments installed on the data processing system;

c) responsive to locating at least one compatible execution environment installed on the data processing system, selecting a compatible execution environment from the located execution environments and executing the application within the selected execution environment; and

d) responsive to failing to locate a compatible execution environment, generating

a user detectable alert, the retrieving of the compatible execution environment

information in a) being further characterized as retrieving prioritized execution

environment information, and the selecting an execution environment in c) being further

characterized as selecting, from the set of located execution environments, the

execution environment having the highest priority, and the searching in b) comprising

searching within a set of directories specified in a PATH variable of the data processing

system, and the retrieving information in a) comprising retrieving a list of compatible

runtime environments for the designated type from a manifest file of an archive

associated with the application and from a network launch protocol file associated with

the application.

2-5. (Canceled)

6. (Currently Amended) The method of claim 1, ~~wherein~~ said retrieving

information and searching of the retrieved information parsed from the data processing

system's files ~~occurs~~ occurring in response to downloading the application via a network

such that the selected execution environment is identified prior to executing the

application.

7. (Currently Amended) The method of claim 1, ~~wherein~~ said retrieving

information and searching of the retrieved information parsed from the data processing

the data processing system's files occurring occurs each time the application is

executed.

8. (Currently Amended) A data processing system including processor means,

storage means, input/output means, and an operating system, the data processing

system further comprising:

a processor; and

at least one storage device connected to the processor, the at least one

storage device having stored thereon an operating system and a virtual machine

program for controlling the processor, and the processor being operative with the virtual

machine program and the operating system to execute the virtual machine program for

performing:

interpreting byte codes of an application, the application being of a designated

type, the virtual machine enabling execution of the designated type by the processor

independently of a kind of the processor and a kind of the operating system software of

the data processing system, the data processing system having a plurality of runtime

environments for the designated type, each runtime environment including instructions

stored on the least one storage device for execution by the processor to implement the

virtual machine on the data processing system, the storage device having stored

thereon a certain program for controlling the processor to select one of the runtime

environments for the application, and the processor being operative with the certain

program to execute the certain program for performing:

a) parsing files of the data processing system's at least one storage device and retrieving information from the parsed files, the retrieved information being indicative of a set of compatible execution environments, each such compatible excution environment being suitable for executing the application;

b) searching the information retrieved from the parsed files of the data processing system's at least one storage device to locate any compatible execution environments installed on the data processing system;

c) responsive to locating at least one compatible execution environment installed on the data processing system, selecting a compatible execution environment from the located execution environments and executing the application within the selected execution environment; and

d) responsive to failing to locate a compatible execution environment, generating a user detectable alert, the retrieving of the compatible execution environment information in a) being further characterized as retrieving prioritized execution environment information, and the selecting an execution environment in c) being further characterized as selecting, from the set of located execution environments, the execution environment having the highest priority, and the searching in b) comprising searching within a set of directories specified in a PATH variable of the data processing system, and the retrieving information in a) comprising retrieving a list of compatible runtime environments for the designated type from a manifest file of an archive associated with the application and from a network launch protocol file associated with the application.

~~a set of execution environments, wherein each execution environment is suitable for executing compatible application programs;~~

~~an application program;~~

~~a file parser to retrieve execution environment information associated with the application, wherein the execution environment information indicates execution environments compatible with the application;~~

~~a search engine to receive the execution environment information from the file parser and to use the received information to identify any compatible execution environments on the system; and~~

~~means for associating the application with one of the compatible execution environments identified by the search engine and for invoking the associated execution environment when executing the application; and~~

~~means for generating an alert responsive to the search engine failing to identify any compatible execution environments on the system.~~

9-10. (Canceled)

11. (Currently Amended) The system of claim ~~10~~8, ~~further comprising means for~~ the method implemented by the computer executing the certain program comprising:

prompting a user to execute the application using one of the identified execution environments following said failing to locate ~~identify~~ any compatible execution environments on the system.

12. (Currently Amended) The system of claim ~~10~~8, ~~further comprising means for~~ the

method implemented by the computer executing the certain program comprising:

        obtaining a compatible execution environment via a network to which the system

is connected following said failing to locate ~~identify~~ any compatible execution

environments on the system.

13-14. (Canceled)

15. (Currently Amended) The system of claim 8, ~~wherein the search engine is~~

~~configured to~~ the searching in b) being limited to a specified set of directories.

16. (Canceled)

17. (currently amended) A computer program product for selecting a runtime

environment in a data processing system having at least one storage device, the at

least one storage device having stored thereon an operating system and a virtual

machine program for controlling a processor of the data processing system, and the

processor being operative with the virtual machine program and the operating system to

execute the virtual machine program for interpreting byte codes of an application, the

application being of a designated type, the virtual machine enabling execution of the

designated type by the processor independently of a kind of the processor and a kind of

the operating system software of the data processing system, the data processing

system having a plurality of runtime environments for the designated type, each runtime

environment including instructions stored on the least one storage device for execution

by the processor to implement the virtual machine on the data processing system, the

computer program product including a computer readable medium having instructions

stored thereon for execution by the processor of the data processing system, the

instructions, when executed by the data processing system, causing the computer to

implement a method for selecting a runtime environment comprising:

a) parsing files of the data processing system's at least one storage device and

retrieving information from the parsed files, the retrieved information being indicative of

a set of compatible execution environments, each such compatible excution

environment being suitable for executing the application;

b) searching the information retrieved from the parsed files of the data

processing system's at least one storage device to locate any compatible execution

environments installed on the system;

c) responsive to locating at least one compatible execution environment installed

on the data processing system, selecting a compatible execution environment from the

located execution environments and executing the application within the selected

execution environment; and

d) responsive to failing to locate a compatible execution environment, generating

a user detectable alert, the retrieving of the compatible execution environment

information in a) being further characterized as retrieving prioritized execution

environment information, and the selecting an execution environment in c) being further

characterized as selecting, from the set of located execution environments, the

execution environment having the highest priority, and the searching in b) comprising

searching within a set of directories specified in a PATH variable of the data processing

system, and the retrieving information in a) comprising retrieving a list of compatible

runtime environments for the designated type from a manifest file of an archive

associated with the application and from a network launch protocol file associated with

the application.

~~comprising a set of computer executable instructions for identifying an execution~~

~~environment for an application program, wherein at least a portion of said set of~~

~~instructions reside on a computer readable storage medium, the computer program~~

~~product comprising:~~

~~identifying instructions for identifying a set of execution environments compatible~~

~~with an application program;~~

~~determining instructions for determining whether a data processing system~~

~~includes at least one of the compatible execution environments; and~~

~~associating instructions for associating the application program with one of the~~

~~compatible execution environments wherein subsequent execution of the application~~

~~occurs within the compatible execution environment; and~~

~~alerting instructions for generating an alert responsive to the search engine~~

~~failing to identify any compatible execution environments on the system.~~

18-20. (Canceled)

21. (New) The computer program product of claim 17, said retrieving information and searching the data processing system's files occurring in response to downloading the application via a network such that the selected execution environment is identified prior to executing the application.

22. (New) The computer program product of claim 17, said retrieving information and searching the data processing system's files occurring each time the application is executed.

23. (New) The computer program product of claim 17, the instructions, when executed by the data processing system, further causing the computer to implement a method for selecting a runtime environment comprising: prompting a user to execute the application using one of the identified execution environments following said failing to locate any compatible execution environments on the data processing system.

Examiner formally withdraws the 35 USC 101 rejection.

Allowable Subject Matter

Claims 1, 6-8, 11-12, 15, 17, and 21-23 are allowed over the prior art made of record and hereby renumbered 1-11.

The following is an examiner's statement of reasons for allowance:

Regarding Independent Claims 12, 15 and 23,   under the broadest reasonable interpretation of the claimed limitation consistence with the Applicant's Specification, the prior art cited   in the record fails to teach all of the Applicant's claimed limitation.   In particularly, the claimed invention advantageously provides a finer level of detail that interprets byte codes in an application with virtual machine, the application being of a designated type of operating system software of the data processing system having a plurality of runtime environments for the designated type, the runtime environment including to implement the virtual machine on a program to select one of the runtime environments for the application, parsing files of the data processing system's at least one storage device and retrieving information from the parsed files, the retrieved information being indicative of a set of compatible execution environments, such compatible execution environment being suitable for executing the application, searching the information retrieved from the parsed files of the data processing system's to locate any compatible execution environments installed on the data processing

system, selecting a compatible execution environment from the located execution

environments and executing the application within the selected execution environment;

and responsive to failing to locate a compatible execution environment, generating a

user detectable alert, the retrieving of the compatible execution environment

information characterized as retrieving prioritized execution environment information,

and the selecting an execution environment further characterized as selecting from the

set of located execution environments, the execution environment having the highest

priority, and the searching within a set of directories specified in a PATH variable of the

data processing system, retrieving information in a list of compatible runtime

environments for the designated type from a manifest file of an archive associated with

the application and from a network launch protocol file associated with the application.

The record is clear as to the reasons for allowance as noted above. Accordingly,

no other additional statement is necessary.

Thus, prior art of record neither render obvious nor anticipates the combination of

claimed elements in light of the specification.

Dependent claims 6-7, 11-12,15, and 21-23 are allowed at least by virtue of

their dependencies from their pertinent independent claims.

After a further search and a thorough examination of the present application and in light of the prior art made of record, claims 1, 6- 8, 11-12, 15, 17 and 21-23 are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diane D. Mizrahi whose telephone number is 571-272-4079. The examiner can normally be reached on Monday-Thursday (9:30 - 4:30 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christian Chase can be reached on (571) 272-4190. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 305-3900 for After Final communication.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (571) 272-

2100.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system.   Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.qov.

Should you have questions on access to the Private PAIR system, contact the

Electronic Business Center (EBC) at 866-217-9197 (toll free).

/Diane Mizrahi/

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